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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,491	07/22/2003	Koji Kondo	723-1411	8017
27562	7590	05/24/2005	EXAMINER	
NIXON & VANDERHYE, P.C. 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			WARREN, DAVID S	
			ART UNIT	PAPER NUMBER

2837

DATE MAILED: 05/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,491

Applicant(s)

KONDO ET AL.

Examiner

David S. Warren

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 09262003
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 4, 8, and 11 are rejected under 35 U.S.C. 102(a) as being anticipated by Por Paul (6,297,438). Regarding claims 1 and 8, Por Paul discloses the use of a sound generating device comprising a housing (16, col. 2, lines 35 – 39), a tilt detector (see sentence bridging cols. 2 and 3; col. 3, lines 1 – 3), storing and reading sound waveforms (col. 4, second paragraph; the Examiner also notes that “generating” a tone and recalling a “sampled” tone are functionally equivalent), and changing the frequency when the housing is tilted (see the paragraph bridging cols. 3 and 4; where tilting operates switches to control pitch – “pitch” is synonymous with “frequency”), and a sound output means (60, fig. 5). Regarding claim 8, the “toy” of Por Paul can be reasonable interpreted as a “game machine.” Regarding claims 4 and 11, Por Paul discloses the use of waveform data reading means (SW9, see last sentence of Abstract).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2837

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 5 - 7, 9, and 12 - 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Por Paul in view of Wheaton (5,422,956). The teachings of Por Paul have been discussed supra regarding independent claims 1 and 8. Regarding claims 2 and 9, while Por Paul does teach the use of sensing plural directions to control music waveform frequency output, Por Paul does not disclose controlling volume in accordance with detected tilt. Wheaton does disclose the use of controlling many musical parameters, including volume (see Abstract), in accordance with a detected tilt (i.e., pitch and/or roll sensing; see fig. 4). **Note:** Wheaton uses the phrase "pitch sensor" wherein "pitch" is meant as an angle, not as a note of a musical scale (see col. 5, lines 2 - 7). Regarding claims 5 and 12, Wheaton discloses the use of a backing track ("backing track is synonymous with "accompaniment" - see Wheaton's claim 25) and "timing" of musical output is typically disclosed as tempo (see Wheaton's claim 26). Regarding claims 6 and 13, Por Paul discloses the use of storing a sequence of notes to be retained for later playback (as defined by Applicant, "results checking" is broadly interpreted by the Examiner as merely listening to a previously stored music piece, in other words, a user "checks" his or her recording by listening to playback). Regarding claims 7 and 14, the storing and reading of sound waveform data at "an operation timing" is synonymous with playing music at tempo (see Wheaton, col. 1, lines 57 - 62). It would have been obvious to one of ordinary skill in the art to combine the teachings of Por Paul and Wheaton to obtain a music generating device activated by plural tilt

sensors, one for controlling the pitch (i.e., frequency) and one for amplitude (i.e., volume). The motivation for making this combination is found in Wheaton, wherein it is highly advantageous to control volume, especially in association with a backing track (i.e., an accompaniment).

5. Claims 3 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Por Paul in view of Wheaton and Kageyama et al. (5,857,171). The teachings of Por Paul have been discussed supra regarding independent claims 1 and 8. Wheaton has been discussed to show a tilt sensor for controlling a volume and tempo of a backing track in a karaoke system. Neither Por Paul nor Wheaton disclose storing and reading "human voice waveform data." Kageyama discloses the use of storing and recalling "voice information the form of a sequence of phonetic elements" (see Abstract, last sentence) in a karaoke system. Since both Wheaton and Kageyama disclose the use of karaoke systems with backing tracks and the "voice information" of Kageyama is deemed well-known (sampling is a well-known method of recording and storing any sound, including voice or instrument sounds). Furthermore, both Por Paul and Wheaton disclose using a tilt detector to control audio output. It would have been obvious to one of ordinary skill in the art to combine the teachings of Por Paul, Wheaton, and Kageyama to obtain a sound system recalling voice information in accordance with tilt. The motivation for making this combination is to utilize backing tracks that include harmonized vocal sounds.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents and/or documents to Miyamoto et al. (6,464,585), Harrison, Jr. (2003/0196542), Nishitani (2003/0041721) all disclose the control of sound waveforms in accordance with tilt detection. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David S. Warren whose telephone number is 571-272-2076. The examiner can normally be reached on M-F, 9:30 A.M. to 6:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on 571-272-2800 ext 37. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


dsw


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PRIMARY EXAMINER